

Lake Coachella Reservoir Rockfall Protection LAKE COACHELLA RESERVOIR, CALIFORNIA, USA

Product: Rock Mesh, Barrier

Problem

A 12 million gallon water tank, the largest in the Coachella Valley Water District, is exposed to potential rockfall hazards. The massive surface area must be contained with only mesh. There is a need to create a protective system to prevent the water tank from impact of both small and large falling rocks and will therefore require a rockfall protection system.

Solution

Maccaferri B900 Rock Mesh was used in cooperation with an on-site 150 foot ton barrier 10' x 450' (3.05 m x 137.16 m) with 10 foot (3.05 m) posts is used. The top 8 feet (2.44 m) of the barrier is utilized for large rockfall events. The bottom 2 feet (0.61 m) of the barrier is utilized to raise the B900 Rock Mesh and create a chute effect to control and allow passage of smaller rock.

Maccaferri products used include:

- 7,000 S.Y. gray PVC B900 Rock Mesh
- 10,000 lineal feet of 5/16" lacing cable
- 400 5/16" clamps
- 560 lineal feet of 3/4" top support cable

Best Features of the Structure

It combines and capitalizes on the performance values of each product.

- Economic Standpoint
 - ◇Minimizes costs of labor and materials for installation
 - ◇Reduced maintenance costs
- Functionality Standpoint
 - ◇Reduced maintenance
 - ◇Allows for passage of smaller rock
 - ◇Prevents loading on barrier
 - ◇Reducing chance of Jumps

Client:

Coachella Valley Water District

Main contractor:

Hi-Tech Rockfall

Designer:

Kane GeoTech

Products used:

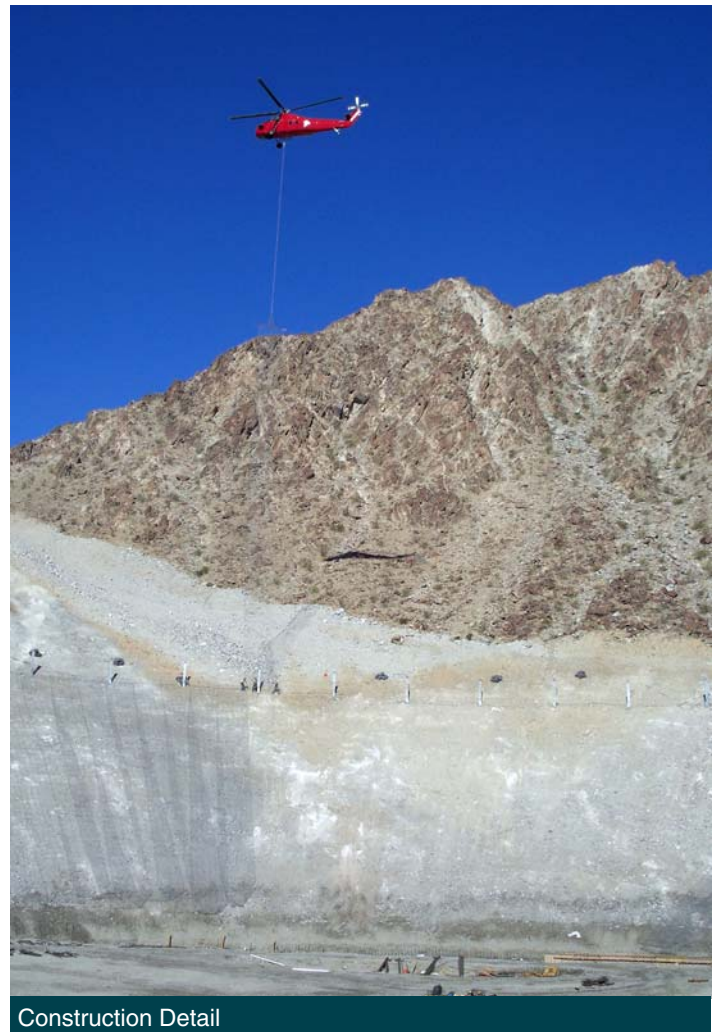
B900 ROCK MESH; 500 KJ BARRIER

Date of construction:

June 2008



Initial Site



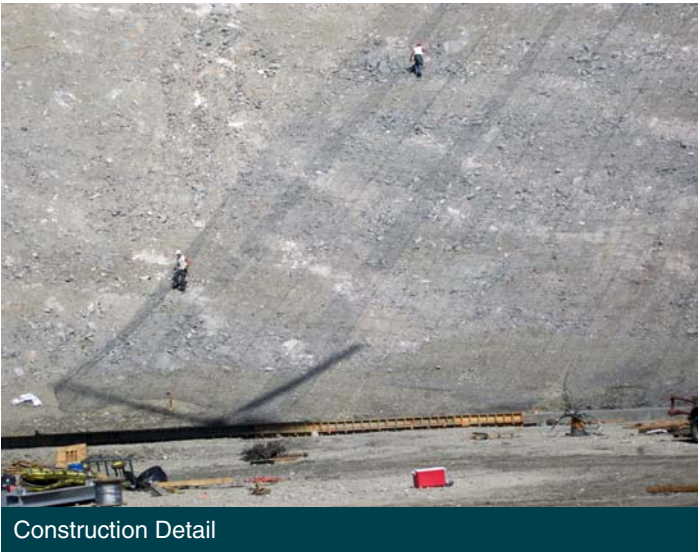
Construction Detail



Construction Detail

Construction

- A 5 person crew worked an 8 hour shift or 40 man hours.
- 450 lineal feet of barrier was installed in 11 days or 440 hours.
- *56,000 square feet of Rock Mesh was installed in 10 days or 400 hours.
- In total it took 21 working days or 840 hours to complete the installation.



Construction Detail



Recent View of the Structure

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